

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-71 (Cancel)

72. (Previously presented) A method for producing a polarized noble gas product, comprising the steps of:

polarizing the noble gas to a first polarization level;

freezing the noble gas from said polarizing step in the presence of an applied magnetic field;

and

thawing the noble gas from said freezing step such that the noble gas product resulting from said thawing step exhibits a second polarization level at least 30% of said first polarization level.

73. (New) A method of claim 72, further comprising the step of:

collecting frozen noble gas from said freezing step within a collection reservoir, the collection reservoir comprising an interior surface of an outer tubular wall in facing opposition to the exterior surface of an inner tubular wall.

74. (New) A method of claim 73, wherein said thawing step further comprises the step of:

providing fluid to an interior surface of said inner tubular wall.

75. (New) A method of claim 74, wherein said first tubular wall further includes an interior surface and wherein said first tubular wall defines a secondary flowpath defined between said interior surface and said exterior surface of said first tubular wall.

76. (New) A method of claim 72, wherein said noble gas is ^{129}Xe .